DOCUMENT RESUME

ED 447 290 CE 080 924

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TITLE Funding Problems of Technical Education in Developing Countries.
PUB DATE 2000-04-10
NOTE 11p.; In: Cross-Roads of the New Millennium. Proceedings of the Technological Education and National Development (TEND) Conference (2nd, April 8-10, 2000, Abu Dhabi, United Arab Emirates); see CE 080 883.
PUB TYPE Information Analyses (070) -- Opinion Papers (120) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Accountability; Adjustment (to Environment); Comparative Analysis; Delivery Systems; Developed Nations; *Developing Nations; Educational Change; Educational Environment; Educational Needs; Educational Quality; *Educational Trends; *Financial Support; Foreign Countries; Government School Relationship; Information Technology; Needs Assessment; Postsecondary Education; Private Schools; Privatization; Proprietary Schools; Public Education; Public Policy; Quality Control; School Business Relationship; *Technical Education; *Technical Institutes; Trend Analysis; *Universities
IDENTIFIERS Arab States; Australia; China; Educational Marketing; Impact Studies; India; Kenya; New Zealand; *Papua New Guinea; Philippines; Singapore; United Kingdom; United States

ABSTRACT

During the past decade, funding mechanisms for universities and technical education institutions and colleges have undergone massive restructuring in developed and developing countries alike. Governmental support has generally decreased, resulting in greater reliance on fee-based education or creation of privately sponsored engineering/technical colleges or universities. The following are some of the trends that will likely result from changes in the funding of technical education: (1) export of education will become an important component of the economies of advanced, rich countries such as Australia, New Zealand, the United Kingdom, and Canada; (2) privatization, commercialization, and marketing of education, especially business, commerce, and information technology will increasingly play a dominant role in developing countries; (3) quality management in developing countries will also move away from government monitoring to professional monitoring, as is now the case in developed countries; (4) the quality of education in developing countries will eventually be determined by market forces; (5) educational funding from individual family budgets will become increasingly difficult in developing countries as privatization results in increased fees; and (6) education will move from being a totally governmental activity to a more commerce- and industry-based activity and will eventually become a service industry. (MN)

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ED 447 290

TEND 2000

Crossroads of the New Millennium

Funding Problems Of Technical Education In Developing Countries

Prepared and Presented

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Monday 10 April, 2000

Workshop 1

CE050 924

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Abstract

During the last decade, funding mechanisms for Universities and Technical Education Institutions/Colleges have undergone a massive restructuring in both developed and developing countries. A common factor in this restructuring has been a gradual reduction in governmental support and consequently greater reliance on either fee based education or on creation of privately sponsored Engineering/Technical Colleges or even Universities.

This Presentation will look at the effect of these changes towards funding scenario of Technical Education in the new millennium by analysing following points:

1. Trends of funding systems in the developed world.
2. Trends of funding mechanisms in the developing world.
3. How Universities and Technical Education Entities are going to survive in the changed scenario?
4. The effects of privatisation, commercialisation and marketing on the academic quality and financial balance sheet.
5. Effect of funding crisis on the societal structure of the humanity.

The Presentation will cover experiences of funding management in Australia, New Zealand, U.K., USA, India, Papua New Guinea, Singapore, Philippines, China, Kenya and Arab countries.

Funding Problems of Technical Education in Developing Countries

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ECONOMIC REALISM

Before we start discussing the nitty-gritty of relationships between funding problems and quality of education, it is better to clarify as to what we mean by the developed and developing countries.

According to my analysis, after the collapse of communism in most parts of the world, there are now only two realigned economic blocks:

- Developed Block consists of those rich/advanced countries where government provides basic Social Security (or Welfare) Support System (SS Net) for its population. This block consists of about 20 countries located in North America, Australia, New Zealand and relatively well-off countries of Western Europe.
- Developing Block consists of those countries where there are no or almost nil SS Net, i.e. when a person is unemployed, the government does not provide basic human survival needs of food and shelter. In these countries, unemployed people have immense problems of filling their and their families' stomach and their first priority is to satisfy their hunger for food and place to live. They would care the least about the other non-essential esoteric issues like quality of life and even quality of education.
- This Non-SS Developing Block consists of all remaining countries in Africa, Asia, Latin America, Central and Eastern part of Europe, numbering over 200.

Oil-rich Arab countries are much better-off than their neighbours in Asia/Africa because of strong governmental economic support and full employment for the Arabian population. I am not very sure whether the governments in Arab countries provide SS Net for their population or not.

Problems of funding management and quality assurance of technical education programmes in developing countries are entirely different than those in developed, rich or advanced countries.

Therefore, it is proposed to raise the debate on Technical Education at the global economic level and examine some of the issues facing developing and poorer countries in managing and improving the quality of engineering education in their countries.

FUNDING SYSTEMS IN THE DEVELOPED WORLD

In advanced/rich countries, most of the educational funding (primary, secondary, tertiary, technical, etc.) is provided by the respective governments largely based on student numbers. Exception to this general scenario is USA, where most of the world famous Universities and Centres of Learning were established and are still funded by private individuals and a collective pool of endowment funds, like Harvard, Cornell, Stanford, etc., Universities.

However, during the last few years, governments in these rich countries, especially in Australia, New Zealand and U.K. have cut the education funding and forced the Universities and Technical Colleges to go in for private fee-based funding in order to augment their resources.

The quality of education provided in these countries is very good and is monitored mainly by professional bodies, who are generally free of governmental or political interference.

FUNDING SCENARIO IN DEVELOPING COUNTRIES

For the general public in these developing countries, any engineering or technical degree or diploma certificate is a passport to lifelong wellbeing of himself or herself and his/her extended family. Therefore, the demand for such qualifications is very high and it is almost a rat race amongst school leavers to get into these engineering/technical colleges. These people will leave no stone unturned to gain entry and pass these courses.

Because the problems of funding and quality are different in larger countries than those in smaller countries, it is proposed to divide developing countries in two groups as below:

- Large countries having a population of more than 10 million
- Small countries having a population of less than 10 million

Large Countries

Universities and Educational Institutions in these countries were initially (in some countries about 600 years back) established by their governments or by their colonial administration and government funding continued for the educational sector till about the 1980s. After the collapse of communism and dominance of market driven economies, in many countries of Central and Eastern Europe and also in Asia like India, Philippines and Indonesia, private sector educational funding is gaining ground.

In view of the aforesaid booming demand, there are hundreds of privately funded Engineering/Technical Colleges in countries like Philippines, India, Thailand, etc., besides the usual state funded ones. These private Colleges are run as business entities and are largely fee based.

As there are now so many of these private Technical/Engineering Colleges, a bit of market driven competition comes in to play. Those who can maintain a good quality of education are attracting better students and can also demand higher fees.

In the present age of internet and computers, private Colleges or Institutions offering good quality information technology education are doing extremely well and will continue to survive in the new millennium as long as this cyber boom continues.

It is extremely difficult to ensure good quality in this mushrooming high demand scenario. Educational quality of most of the central government funded Universities and Institutions, say in India - is still very good but many other state or provincial government owned Universities and Institutions are not in very good shape. Amongst the privately run Colleges and Institutions, as mentioned above, the market decides as to which entity is good or bad.

Quality in all educational institutions in these countries is usually maintained by government operated bodies, which are open to political influence and many times, their decisions are not very objective. Thus, the problems of accreditation and quality assessment is extremely difficult and complex in these large developing countries such as India, Philippines, Indonesia, Thailand, etc.

Education in the tightly controlled economy of China is still largely state funded with practically little or no role for private sector educational involvement. Quality in all Engineering/Technical Colleges is also largely undefined and is monitored by state controlled bodies.

Some African countries have also started to establish private Colleges and Universities and presently there are a few private Universities in Kenya. Education funding is largely a state monopoly in most of the Arab countries, especially those having large oil resources. Quality is also monitored by state appointed entities in these countries.

Small Countries

There are also many very small poorly resourced developing countries where there is only one engineering school and/or two-three technical colleges. Products of these schools/colleges work only in their own country and educational globalisation has little or no meaning for them.

For example, in a country like Papua New Guinea, there is only one Degree based Engineering School in a Technical University and there are 5-6 Technical Colleges that produce Diploma, Associate Diploma and Trade Certificate qualified students in technical areas. All these are largely funded by the government, and funding is being reduced every year due to budget constraints.

However, during the last ten years, a number of privately - run business colleges have propped up, which offer courses in Business, Accounting and Computing - requiring minimum laboratory facilities. The situation is similar in other smaller countries like Fiji, Brunei, etc.

Quality and accreditation has little or no meaning in these small countries, where the number of Technical Colleges offering technical education is extremely limited and it is difficult to compare one from the other. Quality is mainly driven by market forces and employers decide as to which student is bad or good. The name of the college or institution has a very small relationship with quality, because of the monopoly of these colleges in their own field of operation.

SURVIVAL IN THE NEW MILLENNIUM

Looking into the past decade's trend of funding technical and IT orientated educational entities, it would be obvious that private funding will play an increasing role in the coming decades in both developed and developing countries.

Market driven economic scenarios are also becoming popular in almost all countries as old state controlled operations, rules, and regulations slowly crumble and disappear. Therefore, in the new millennium, quality management of educational entities will also move away from state bodies to independently minded professional bodies and societies.

Employers will demand products of good quality and in a totally market driven culture, poor and badly run educational entities will fail and only the good ones will survive.

COMMERCIALISATION OF EDUCATION

As governments around the world cut back in education funding, commercial and private entities will take a greater role in educational business. Education is slowly becoming a Service Industry similar to Banking, Insurance, Travel, etc.

As privatisation and commercialisation of education continues, marketing of good quality education will become a dominant force in world markets.

Recent examples of aggressive education marketing are those mounted by Australian and British Universities in countries like Singapore, India, Malaysia, etc.

Educational marketing in itself is becoming a big industry. Therefore, now there are many conferences, workshops and educational trade shows being organised by respective embassies, consortia of Universities and specialised education export companies.

Australia now earns about US$ 4 to 5 Billion per year from its education export and attracts a large number of full-fee paying students, mostly from Asian countries.

Many universities in developed countries continuously look over their balance sheets and try to maximise their incomes through admitting larger numbers of fee-paying foreign students.

Upkeep of the quality of education in this free-for-all scenario will become extremely complex as we move along from state controlled quality monitoring to objectively minded professional quality monitoring. Professional bodies and institutions like Institutions of Engineers or Accountants or Lawyers will play a more dominant role in enforcing quality in both government-run and privately funded educational entities. In the ultimate analysis, when the economies become totally market driven, survival of the fittest and best will automatically ensure good quality both nationally and internationally.

FUNDING CRISIS EFFECTS

The effects of funding crisis (due to cuts in governmental education budgets) vary from country to country based largely on presence or absence of the Social Security Net (SS Net). SS Net was defined in Section 2 of this Paper.

In advanced/rich/developed countries, governments fund almost 90% of all educational expenses of all students. Students and/or their families have to pay little or almost no fees to attend schools, colleges or universities. The education is almost free for all this population. Therefore, although the governments in these countries are cutting educational funds, it has practically no effect either on quality of education or on the living standards of local population because the cuts in governmental funding are being compensated by export and commercialisation of education and by the admittance of larger numbers of full-fee paying foreign students. This scenario is common in Australia, New Zealand, USA, UK, Canada, etc.

The effects of funding crisis and privatisation are much more pronounced and deep rooted in developing countries. In India, for example, fees in the government-run Colleges and Universities are very low but fees in private Colleges and Institutions are very high and therefore place a very heavy burden on the families. It is becoming extremely difficult for an ordinary Indian family to give good quality education to their children because of the high fees charged by private colleges and extremely limited number of places available in the low fee government-run colleges. This scenario is similar in other large developing countries like Philippines, Indonesia, Thailand, etc.

In small developing countries like Papua New Guinea, all University and Technical Education was totally free in the past, and the government even used to give a pocket allowance in cash to all tertiary students. Since 1996, the government abolished the pocket allowance and started charging 10% of the fee to students or their parents. For poor families in far-flung villages, it is extremely difficult to pay even this US$100 fee per year. The government wants to increase this fee contribution to 25% or more but is facing immense resistance from the local population, who is hard pressed at meeting their basic needs in poor economic conditions.

As is clear from the above analysis, education is slowly coming out of its ivory tower existence and is trying to find its place in the wider market place by extending its reach in different countries through different means to survive and expand.

CONCLUSIONS

The following points emerge from the above analysis:

- Export of education will become an important component of the economies of advanced/rich countries like Australia, New Zealand, U.K. and Canada.
- Privatisation, Commercialisation and Marketing of education, especially business, commerce, and information technology will increasingly play a dominant role in developing countries.
- Quality management in developing countries will also move away from government monitoring to professional monitoring; as is now the case in developed countries.
- The quality of education in developing countries, in the long run, will be determined by market forces. Quality educational entities will attract better students and will also be able to charge higher fees.
- Educational funding from the individual family budget in developing countries will become increasingly difficult in the privatisation scenario as fees will increase.
- Universally, education will move away from being a totally governmental activity to a more commerce and industry based activity and wil, in the course of time, become a Service Industry similar to banking, finance, insurance, travel, etc.